AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

1.   (Previously Presented) A method of handling datagrams in a network device coupled to other network devices, the method comprising:

performing, by the network device, a lookup of an address resolution lookup (ARL) table based on a source address contained in an incoming datagram to determine whether the source address has been learned previously;

determining, when the source address has been learned previously, whether the other network devices have learned the source address by examining a learned all devices tag for the source address in the ARL table; and

when it is determined that the other network devices have not learned the source address:

sending, by the network device, a learning message with the source address to the other network devices; and

re-sending, by the network device, the learning message to the other network devices until the learning message is returned to the network device from one of the other network devices.

2.   (Previously Presented) The method of claim 1, wherein the method further comprises updating a hit bit in the ARL table when the source address has been learned previously.

3.   (Canceled)

4.   (Previously Presented) The method of claim 1, wherein the network device and the other network devices are connected through a ringed connection and continuing to relay the learning message comprises continuing to relay the learning message through the ringed connection.

5.   (Canceled)

6.   (Previously Presented) The method of claim 4, further comprising determining an
egress port for the incoming datagram based on a destination address contained in the incoming
datagram and a lookup of the ARL table, wherein determining an egress port comprises flooding
all ports of the network device with the incoming datagram when the lookup of the ARL table
does not find a match with the destination address.

7.   (Previously Presented) The method of claim 1, wherein the incoming datagram
comprises an incoming data packet.

8.   (Currently Amended) A network device coupled to other network devices for
handling datagrams comprising:
        a computer readable storage medium having instructions stored thereon, wherein the
instructions, when executed by the network device, ~~provide for implementing~~ cause the
network device to:
                implement an address resolution lookup (ARL) table;
                ~~lookup means for performing~~ perform a lookup of the ARL table based on a
        source address contained in [[the]] an incoming datagram to determine whether the
        source address has been learned previously;
                ~~determining means for determining,~~ determine, when the source address has
        been learned previously, whether the other network devices have learned the source
        address by examining a learned all devices tag for the source address in the ARL table;
        and
                ~~relaying means for relaying~~ relay a learning message with the source address
        from the network device to the other network devices when it is determined that the other
        network devices have not learned the source address, wherein [[the]] relaying [[means]]
        the learning message comprises repeatedly ~~relays~~ relaying the learning message from
        the network device to the other network devices until the learning message is returned to
        the network device from one of the other network devices.

9.   (Currently Amended) The network device of claim 8, wherein the instructions, when executed by the network device, further ~~provide for implementing updating means for updating~~ cause the network device to update a hit bit in the ARL table when the source address has been learned previously.

10.   (Canceled)

11.   (Currently Amended) The network device of claim 8, ~~wherein~~ wherein:

the network device and the other network devices are connected through a ringed ~~connection;~~ connection; and

~~the relaying means comprises a ring relaying means for~~ relaying the learning ~~message comprises~~ relaying the learning message through the ringed connection.

12.   (Previously Presented) The network device of claim 8, wherein the network device is connected to the other network devices through one of a stacking port of the network device and an expansion port of the network device.

13.   (Currently Amended) The network device of claim 8, wherein the instructions, when executed by the network device, further ~~provide for implementing means for determining~~ cause the network device to determine an egress port for the incoming datagram based on a destination address contained in the incoming datagram, wherein ~~the means for~~ determining [[an]] the egress port comprises ~~a flooding means for~~ flooding all ports of the network device with the incoming datagram when the lookup of the ARL table does not find a match with the destination address.

14.   (Previously Presented) A network device coupled to other network devices for handling datagrams comprising:

a computer readable storage medium having instructions stored thereon, wherein the instructions, when executed by the network device, provide for implementing:

an address resolution lookup (ARL) table;

an ARL table reader configured to perform a lookup of the ARL table based on a source address contained in an incoming datagram to determine whether the source address has been learned previously;

a global address determiner configured to determine whether the other network devices have learned the source address when the source address has been learned previously by examining a learned all devices tag for the source address in the ARL table; and

a learning message forwarder configured to relay a learning message with the source address from the network to the other network devices when it is determined that the other network devices have not learned the source address, wherein the learning message forwarder is further configured to repeatedly relay the learning message, from the network device to the other network devices until the learning message is returned to the network device from one of the other network devices.

15. (Previously Presented) The network device of claim 14, wherein the instructions, when executed by the network device, further provide for implementing an updater configured to update a hit bit in the ARL table when the source address has been learned previously.

16. (Canceled)

17. (Previously Presented) The network device of claim 14, wherein the network device and the other network devices are connected through a ringed connection and the learning message forwarder comprises a ring message forwarder configured to relay the learning message through the ringed connection.

18. (Previously Presented) The network device of claim 14, wherein the network device is connected to the other network devices through one of a stacking port of the network device and an expansion port of the network device.

19.   (Previously Presented) The network device of claim 14, wherein the instructions, when executed by the network device, further provide for implementing an egress port determiner configured to determine an egress port for the incoming datagram based on a destination address contained in the incoming datagram, wherein the egress port determiner comprises a port flooder configured to flood all ports of the network device with the incoming datagram when the lookup of the ARL table does not find a match with the destination address.

20.   (Previously Presented) The method of claim 1, further comprising writing an entry into the ARL table when the source address has not been learned previously.

21.   (Currently Amended) The network device of claim 8, wherein the instructions, when executed by the network device, further ~~provide for implementing writing means for writing~~ **cause the network device to write** an entry into the ARL table when the source address has not been learned previously.

22.   (Previously Presented) The network device of claim 14, wherein the instructions, when executed by the network device, further provide for implementing an ARL table writer configured to write an entry into the ARL table when the source address has not been learned previously.